

AABB releases new guidelines for red blood cell transfusion

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AABB (formerly known as the American Association of Blood Banks) recommends a restrictive red blood cell transfusion strategy for stable adults and children, according to new guidelines being published in *Annals of Internal Medicine*. Physicians should consider transfusing at a hemoglobin threshold of 7 to 8 g/dL, as the evidence shows no difference in mortality, ability to walk independently, or length of hospital stay between patients on a liberal transfusion strategy or a restrictive strategy. Wide variability in the use of transfusions in the United States indicates that in many settings patients are receiving unnecessary transfusions.

"Our recommendation is based on the evidence that restrictive transfusion is safe and associated with less blood use," said Jeffrey L. Carson, MD, Chief of the Division of General Internal Medicine at UMDNJ-Robert Wood Johnson Medical School, New Brunswick, NJ, and lead author of the guideline. "Of course, [clinical judgment](#) is critical. Physicians may choose to transfuse above or below the specified hemoglobin threshold based on individual patient characteristics."

A 20-member panel of experts based their assessment on a systematic review of research published from 1950 to 2011 to determine optimal use of [red blood cells](#) to maximize clinical outcomes and avoid the harms and costs of unnecessary transfusions. The researchers examined the proportion of patients who received any red [cell transfusion](#) and the number of red cell units transfused to describe the impact of restrictive transfusion strategies on red blood cell usage. To determine the clinical

consequences of a restrictive strategy, the researchers examined overall mortality, non-fatal myocardial infarction, cardiac events, [pulmonary edema](#), stroke, thromboembolism, renal failure, infection, hemorrhage, mental confusion, functional recovery, and length of hospital stay.

Based on the evidence, the panel also suggests adhering to a restrictive transfusion strategy for patients with preexisting cardiovascular disease. Physicians should consider transfusion for patients with symptoms of anemia or a hemoglobin of less than or equal to 8 g/dL. However, the researchers caution that there was some uncertainty about risk for perioperative [myocardial infarction](#) associated with this approach. The panel found insufficient evidence to recommend a liberal or restrictive transfusion strategy for patients with acute coronary syndrome.

While physicians most commonly use hemoglobin concentration to decide when to transfuse, the panel suggests that physicians also consider symptoms of anemia in their decision-making.

Provided by American College of Physicians

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